"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

SOV/21-59-12-1/20

Substantiation of the Method of Successive Reduction of the Order of Systems of Ordinary Differential Equations

are 3 references, 2 of which are Soviet and 1 American.

ASSOCIATION: Instytut teploenerhetyky AN URSR (Institute of Thermal Power Engineering of the AS UkrSSR)

PRESENTED: By Y.Z. Shtokalo, Member, AS UkrSSR

SUBMITTED: March 27, 1959

Card 2/2

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

LAVRENT'YEV, P.A., prof.; KOZLOV, Ye.M., mladshiy nauchnyy sotrudnik; GVOZDKOVA, N.A., starshiy laborant

Prolongation of the insecticidal action of chlorophos. Veterinar'ia 41 no.8:90-92 Ag '64. (MIRA 18:4)

1. Kazanskiy veterinarnyy institut.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Ye.M. [Kozlov, IE.M.]

An improper integral in operational calculus. Dop. AN URSR no.3: 263-265 '65. (MIRA 18:3)

1. Kiyevskiy tekhnologicheskiy institut pishchevoy promyshlennosti.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yevgeniy Prokop'yevich; MASHINA, O.K., red.

[Promoters of technical progress] Zastrel'shchiki tekhnicheskogo progressa. Frunze, Kirgizskoe gos. izd-vo 1963. 42 p. (MIRA 19:1)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ACC NR: AP7009082 SOURCE CODE: UR.0413/67/000/003/0056/0056

INVENTOR: Medvedev, S. K.; Ginzburg, Ye. L.; Titov, M. M.; Kozlov, Ye. V.; Volkov, S. S.; Bocharov, G. A.

ORG: None

TITLE: A high-voltage pulse capacitor. Class 21, No. 190996 [announced by the Capacitor Design Branch of the All-Union "Order of Lenin" Electrical Engineering Institute im. V. I. Lenin (Filial po kondensatorostroyeniyu Vsesoyuznogo ordena Lenina elektrotekhnicheskogo instituta)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1967, 56

TOPIC TAGS: electric capacitor, pulse signal

ABSTRACT: This Author's Certificate introduces a high-voltage pulse capacitor equipped with insulating layers made from paper saturated with a liquid dielectric and plates of aluminum foil. The capacitor is made in the form of packets which are electrically and mechanically interconnected. These packets consist of plane-parallel pressed sections with the higher-potential sections located in the middle of the packet and the lower-potential sections at the ends. The leads are connected to accumulator buses. The capacitor is designed for reduced inductance with a simultaneous simplification of production technology. The high-voltage bus is parallel to the end surfaces of the section packets and has holes for passage of the packet taps connected to this bus

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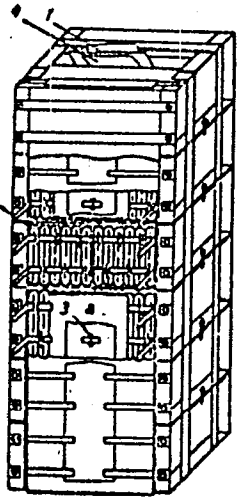
ACC NR: AP7009082

from points of high potential. The low-voltage bus is above and parallel to the high-voltage bus and is connected to normally situated packet taps from points of low potential.



1--lower bus; 2--sections; 3--holes; 4--upper bus

SUB CODE: 09/ SUBM DATE: 13Jul64

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 25688-65 EEO-2/EWT(d)/EEC-4 Pn-4/Pc-4/Pq-4/Pe-4/Pk-4/P1-4 EM
ACCESSION NR: AP5001612 S/0209/64/000/012/0046/0049

AUTHOR: Kozlov, Yu. (Lieutenant colonel, Military navigator first class)

TITLE: Comprehensive utilization of aircraft navigation instruments

SOURCE: Aviatsiya i kosmonavtika, no. 12, 1964, 46-49

TOPIC TAGS: aeronavigation, directional gyro, automatic course computation, magnetic compass, astronomical compass, coordinate system

ABSTRACT: The author discusses his experience in the comprehensive use of aircraft navigation aids, with emphasis on the fundamental role of the orthodromic coordinate system and the directional (control) gyro. The author points out that the directional (control) gyro is, in fact, the principal navigational instrument used in the maintenance of an assigned course and in changing from one course bearing to another. Magnetic (gyro-magnetic) and astronomical compasses are used for periodic correction of the directional gyro readings. Advantages offered by the directional (control) gyro over other course-bearing instruments in providing for navigation over the lines of shortest distance - orthodromics - are reviewed and it is shown how the problem of automatic course computation is solved on the

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 25688-65
ACCESSION NR: AP5001812

basis of the formulae of rectilinear trigonometry with the automatic course computing mechanisms built directly into the system. A theoretical explanation is given of the use of the directional (control) gyro together with the orthodromic coordinate system, and the conditions necessary for the elimination of methodological errors in flights along the main orthodromy are derived. The discussion of map plotting requirements involves only a minimum of mathematical apparatus. Practical information and examples are given with respect to the verification and correction of individual gyroscope units as applicable to the problems of course plotting using the orthodromic coordinate system. Orig. art. has: 5 formulas and 1 table.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: NG, AC

NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.A.; POLYAKOV, A.L.

New synthetic materials used in manufacturing transformers.
Biul. tekh. ekon. inform. no.9:50-53 '59. (MIRA 13:3)
(Resins, Synthetic) (Electric transformers)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.A., inzh.; POLYAKOV, A.L., inzh.; SOKOLOVA, S.L., inzh.

Cast insulation from MBK-1 compound for instrument transformers. Vest.elektroprom. 31 no.2:12-17 F '60. (MIRA 13:6)
(Electric insulators and insulation)
(Electric measurements)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.A. (Vartemyaki Leningradskoy oblasti)

Problems on hydrostatics. Fiz. v shkole 23 no.5:73-74 S-O '63. (MIRA 17:1)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu. A.

First Kiev Medical Institute

"Increasing Antigenic Activity of Precipitated Diphtheria Anatoxin"

SOURCE: Mikrobiologichnyi Zhurnal, 7(1/2):125-38, 1940

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu. A. and N. V. Kartseva (Scientific Research Institute of Epidemiology and Hygiene of the Red Army)

"Determination of Fermentative Activity of the Pancreas and Its Preparation in the Practice of Production of Tryptic Hydrolysates"
for determination of the quantity of fermentative preparation nedessary to obtain hydrolysates
(from ANNOTATIONS OF THE ARTICLES SUBMITTED TO THE EDITORIAL OFFICE)

SO: "hurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 6, pp.78-78-79, 1945

(T rans V831 (partial) by L. Lulich

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu. A. and Kartseva, E. V.

Scientific Research Institute of Epidemiology and Hygiene of the Red Army

"Experimental Preparation of Culture Media in Penicillin Production"

SOURCE: Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, 8-9: 57-59, 1946

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu. A.

Kozlov, Yu. A. and Chalisov, I. A. "Immunological and tissue characteristics of percutaneous immunization with dry sugar-gelatinagar NIIEG baccine from the EG strain," Byulleten' In-ta tuberkuleza Akad. med. nauk SSSR, 1948, No. 4, p. 7-16

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu. A.

USSR/Medicine - Infectious Diseases Feb 50

1949

"Immunogenic Properties of Dry Live Antituberculosis NIIEG Vaccine Prepared From a BCG Strain," Yu. A. Kozlov, NIIEG [Sci Res Inst of Epidemiol and Hygiene) from the

"Mikrobiologichniy Zhur" Vol XI, No 4, pp 74-80

Kozlov proposed in 1946 a dry BCG [Bacillus Calmette - Guerin] vaccine prepd with the use of NIIEG media for drying. Allergizing properties of the dry saccharose-gelatine-agar BCG vaccine are superior to those of dry glucose vaccine after a yr of storage at +2 to +4°. They are superior to those

203T84

USSR/Medicine - Infectious Diseases (Contd) Feb 50

1949

of fresh liquid vaccine. Dry BCG vaccine prepd with NIIEG drying media and kept for 1 yr at +2 - +4° surpasses dry glucose vaccine in its immunogenic properties.

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APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910C

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu. A.

"Nutrient Media in Medical Microbiology", Handbook n the Preparation of Nutrient Media for Microbiological Institutes and Sanitation-Bactreriology Laboratories, Moscow, 252 pp, 1950.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, YU. A.

USSR/Medicine - Food Poisoning Nov 52

"Review of Monograph 'Food Poisoning and Its Prophylaxis', by N. I. Orlov, Library of the Practicing Physician, Medgiz, 1952, 119 pp, 25,000 copies," (Yu. A. Kozlov, reviewer)

Gig i San, No 11, pp 60,61

Lauds the clear and concise style of the author and the up-to-date presentation of information on food poisoning of bacterial and nonbacterial origin. Objects to the brief treatment of Salmonella organisms and of their pathogenicity in producing toxic infections. Considers that to little space

264T35

is allocated to a discussion of Sonne dysentery bacilli as originators of toxic food infections, and does not quite agree with the author's treatment of the symptomatology and pathogenesis of toxic infections caused by Sonne bacilli.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.A.

"Alimentary toxic infections of a paratyphoid character," I.V.Shur. Reviewed by IU.A.Kozlov. Gig. i san. no.11:58-59 N '54. (MLRA 7:12)
(SHUR, I.V.)
(FOOD--BACTERIOLOGY)
(SALMONELLA PARATYPHI)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu. A.

V. K. Vysokovich (On the Occasion of His 100th Birthday). Voyenno-meditsinskiy Zhurnal, No 1, p 86, 1955.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.A., polkovnik meditsinskoy sluzhby, dotsent

"Leptospirosis in man." V.S.Kiktenko. Reviewed by IU.A. Kozlov. Voen.-med. zhur. no.10:93-94 O '55. (MLRA 9:10)
(LEPTOSPIROSIS)
(KIKTENKO, V.S.)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

MARTYNOV, V.Ya., mayor med.sluzhby, KOZLOV, Yu.A., kapitan med.zluzhby
BELOUSOV, G.P., leytenant med.sluzhby

Oxygen treatment for ascariasis at medical stations. Voen.-med. zhur. no.8:68-69 Ag '56 (MIRA 12:1)
(ASCARIDS AND ASCARIASIS)
(OXYGEN—THERAPEUTIC USE)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ANAN'YEV, M.G., MUSHEGYAN, S.A., LEVITSKAYA, L.A., VAYNRIB, Ye.A., FRID, Ye.A. KOZLOV, Yu.A., MARTYNOV, L.N.

Apparatus for artificial blood circulation made by the Scientific Research Institute for Experimental Surgical Apparatus and Instruments and results of experimental use [with summary in English]. Eksper. khir. 3 no.3:25-31 My-Je '58 (MIRA 11:8)

1. Iz Nauchno-issledovatel'skogo instituta eksperimental'noy khirurgicheskoy apparatury i instrumentov (dir. M.G. Anan'yev) Ministerstva zdravookhraneniya SSSR.
(HEART, artif.
extracorporeal circ., in dogs (Rus))

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ANBINDER, Ya.Ye. [Anbinder, IA.IE.]; SHPAKOVSKIY, N.Ye. [Shpakovs'kyi, N.E.]; DARBINYAN, S.A.; KOMAROV, V.V.; KOMAROVA, T.V.; KOZLOV, Yu.A.; KONOKOTIN, L.P.; ZEREKIDZE, V.M.; SHULYATITSKIY, S.M. [Shyliatyts'kyi, S.M.]; KHODURSKIY, Ye.A. [Khodurs'kyi, IE.A.]; OBUSHINSKIY, Ye.I. [Obushyns'kyi, IE.I.]; GVOZDIK, A.A. [Hvozdyk, A.A.]; NIKITINA, M.A.; LUPASHKO, N.F.; BESKROVNYY, M.N.; TSIMBLER, M.Ye. [TSymbler, M.IE.]; ILYN, A.N.; TOTADZE, P.M.; ZHIGURS, Kh.Yu.; ZAKREVSKIY, Ye.S. [Zakrevs'kyi, IE.S.]; FEDOROVICH, A.G. [Fedorovych, A.H.]; CHALENKO, D.K.; KHOMUTOV, D.A.; SKURIKHIN, I.M.; NILOV, V.I.; YEFIMOV, B.N. [IEfimov, B.N.]; KAZANOVSKIY, V.S. [Kazanovs'kyi, V.S.]; ZOTIKOV, L.S.; KOCHURENKO, M.A.

Soviet certificates of invention. Khar. prom. no.2:57-59 Ap-Je '65. (MIRA 18:5)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 12971-65 EWT(m)/EPF(c)/EPF(n)-2/EWP(t)/EWP(b) Pr-4/Pu-4 GG/JD

ACCESSION NR: AP4039637 S/0181/64/006/006/1573/1578

AUTHORS: Budylin, B. V.; Kozlov, Yu. F.

TITLE: Some features of decoloration of alkali halide crystals bombarded by neutrons during isothermal annealing

SOURCE: Fizika tverdogo tela, v. 6, no. 6, 1964, 1573-1578

TOPIC TAGS: decoloration, color center, alkali halide neutron bombardment, isothermal annealing, defect formation, diffusion decay, single crystal study/ MIM 8 metallographic microscope

ABSTRACT: In their experiments, the authors used single crystals of KI, KBr, KCl, NaI, NaBr, and NaCl grown from fused salts. For studying isothermal annealing in single crystals, specimens in the form of parallelopipeds were produced by appropriate cleavage to give dimensions of 5 x 5 x 15 mm. The specimens were irradiated in the duct of a reactor at 20C by an integrated flux of neutrons ranging from $1.2 \cdot 10^{15}$ to $1.2 \cdot 10^{20}$ neutrons/cm^2. The test and control specimens were placed in ceramic crucibles having a high thermal inertia, and these were set in a crucible furnace. Specimens were extracted from the furnace and cooled at set intervals of time. The rate of temperature change in the process did not exceed 15 deg/min. The

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 12971-65

ACCESSION NR: AP4039637

3

required observations were made on cleavage fragments of annealed samples by means of an MIM-8 metallographic microscope. Results show that isothermal annealing of specimens irradiated with an integral flux exceeding 10^{18} neutrons/cm^2 leads to anomalous destruction of color centers in the zone adjacent to crystal faces. Macroscopic pores are formed throughout the whole volume of the annealed samples. The formation of these pores is accompanied by increased intensity of light scattering and by an acceleration of anomalous local decoloration. This local decoloration takes place in two stages. The first involves decrease in defect saturation in the zone next the crystal face because of microdiffusion to the boundaries. The second, accompanied by development of cloudiness in the crystal, involves the formation of an internal escape mechanism for the defects formed by the pores. These pores are due to diffusion decay of solid solutions saturated with vacancies. The authors express their thanks to Professor A. A. Vorob'yev for discussing the results of this work." Orig. art. has: 3 figures, 2 tables, and 5 formulas.

ASSOCIATION: None

SUBMITTED: 11Mar63 ENCL: 00

SUB CODE: SS, NM NO REF SOV: 003 OTHER: 004

Card 2/2

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ACCESSION NR: AP4009479 S/0051/63/015/006/0839/0840

AUTHOR: Yegorov,V.S.; Kozlov,Yu.G.; Shukhtin,A.M.

TITLE: Concentrations of excited atoms in pulse discharges in a mixture of helium and neon

SOURCE: Optika i spektroskopiya, v.15, no.6, 1963, 839-840

TOPIC TAGS: inert gas , excitation, energy transfer, pulse discharge , level population, helium, neon, optical pumping

ABSTRACT: Earlier two of the authors (A.M.Shukhtin and V.S.Yegorov, Vestnik LGU, No.3,1959 and Opt.i spektro,9,794,1960) studied the population of the upper levels of neon at different stages of a pulse discharge. The present paper gives some of the results of a similar investigation, also by the Rozhdestvenskiy method of hooks of pulse discharges in mixtures of neon and helium. The discharges were realized in a 15-mm diameter, 60-cm long tube. It was found that the introduction of He results in increase of the peak concentration of Ne in the $2p^5 3sX$ state; at the same time the population of the $1s2s^3S_1$ of He is reduced. The inferred level populations for Ne and He separately at 0.5 and 4 mm Hg pressure and in mixture with

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ACC.NR: AP4009479

the same pressure ratio are given in a table. The increase in the relative number of excited Ne atoms is attributed to energy transfer incident to elastic and inelastic collisions of the He atoms with the other particles of the decaying plasma. The various possible energy transfer mechanisms are discussed. It is concluded that a number of these mechanisms may play a significant role. Orig.art.has: 8 formulas, 1 table and 1 figure.

ASSOCIATION: none

SUBMITTED: 25May63	DATE ACQ: 03Jan64	ENCL: 00
SUB CODE: PH	NR REF SOV: 001	OTHER: 004

Card 2/2

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 7022-65 EWG(j)/EWA(k)/FBD/EWT(1)/EEC(m)/EPF(c)/EEC(k)-2/EPF(n)-2/EEC(t)/EWP(k)/EWA(h)/EWT(m)/EWP(t)/EWP(b) Pr-4/Pi-4/Pf-4/Pn-4/Pg-4/Pz-4/Ps-4/Pu-4/Peb IJP(c)/ASD(a)-5/AFWL/AEDC(b)/SSD/RAEM(a)/ESD(gs)/ESD(t)/RAEM(t)

ACCESSION NR: AP4042999 WJ/JD S/0051/64/017/001/0154/0156

AUTHOR: Yegorov, V. S.; Kozlov, Yu. G.; Shukhtin, A. M.

TITLE: On the concentrations of excited atoms in pulsed discharges in helium

SOURCE: Optika i spektroskopiya, v. 17, no. 1, 1964, 154-156

TOPIC TAGS: laser power pulsation, pulsed arc, helium neon laser, atomic energy level, excited state, laser

ABSTRACT: Interferometric methods and a double electric probe method were used to measure the concentration of the excited helium atoms at the levels $1s2s(^3S_1, ^1S_0)$ and $1s2p\ ^3P_{0,1,2}$, the concentrations of the charged particles, and the temperature of the electron gas during different stages of a pulsed discharge. The measurements were made in a discharge tube 60 cm long and 14 mm in diameter filled with helium at pressures from 4 to 12 mm Hg. A 10 microsecond current pulse with

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ACCESSION NR: AP4042999

maximum density of several dozen A/cm^2 was produced by discharging a 0.8 microfarad capacitor charged to 1500—2500 v. The concentrations of the excited atoms were determined by the Roshdestvenskiy hook method near the lines 3889, 3965, and 5876 Å. The time variations of the first excited levels obtained are in full agreement with the relations previously derived for a pulsed discharge in neon (A. M. Shukhtin, V. S. Xegorov, Vestn. LGU, ser. fiz. i khim., no. 16, issue 3, 1959). The recombination coefficient can be obtained from the optical and electrical measurements and is found to be about three orders of magnitude lower in helium than in neon. The reasons for the difference are discussed. The rates of growth of the atom concentrations in the first excited states at the instant directly following the termination of the discharge current were carefully investigated, and the characteristic interference patterns resulting from the jump in the concentration of the excited atoms are interpreted. A comparison of the rates of growth of the concentrations of the excited atoms after termination of the current in pure helium and in a neon-helium mixture shows that collisions of

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

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ACCESSION NR: AP4042999

the second kind do not play an important role in the population of these levels under the experimental conditions. This conclusion agrees with the previous established experimental facts, that the maximum concentration of the excited helium atoms arising after termination of the discharge in the helium-neon mixture are small compared with the concentrations of the atoms of the neon and compared with the maximum values of the concentrations of excited helium atoms observed after termination of the discharge in pure helium. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 20Nov63 ATD PRESS: 3104 ENCL: 01

SUB CODE: EC, NP NO REF SOV: 004 OTHER: 001

Card 3/4

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 7022-65
ACCESSION NR: AP4042999

ENCLOSURE: 01

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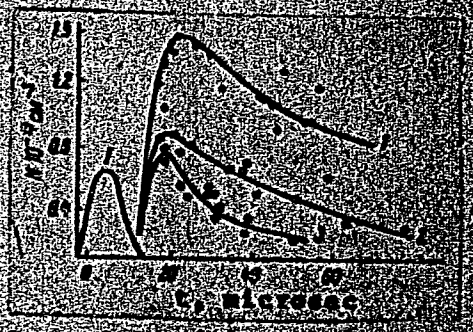

Fig. 1. Dependence of the population of the level 2^3S_1 on the time for different pressures

1 - Current pulse; Pressure: 1 - 11.2; 2 - 7.3; 3 - 3.8 mm Hg.

Card 4/4

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu. G.

Pathophysiologic mechanisms of hypochondriac delirium. Zh. nevropat. psikhiat., Moskva 53 no.12:935-941 Dec 1953. (CLML 25:5)

1. Department of Psychiatry of First Leningrad Medical Institute imeni I. P. Pavlov and Laboratory of the Physiology of Receptors of the Institute of Physiology imeni I.P. Pavlov of the Academy of Sciences USSR.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu. G.

USSR/Medicine/Neurophysiology - Pharmacology FD-2949

Card 1/2 Pub. 17-13/23

Author : Kozlov, Yu. G.

Title : Influence of intravenous administration of novocaine on conditioned interoceptor reflexes.

Periodical : Byul. eksp. biol. i med. 7, 47-49, July 1955

Abstract : Author investigated the action of novocaine by injecting it into the femoral veins of dogs to test the conditioned interreceptor reflexes. The dogs had stomach fistulas and had had the parotid gland duct removed. A rubber ball served to irritate the gland walls. The unconditioned reflex secretion during the first injection of novocaine decreased up to 10-15% with restoration following after 8-12 minutes. During later novocaine injections the amount of unconditioned reflex secretion did not change much. Each intravenous injection of 1% novocaine solution brought about a tapering off of conditioned saliva reflexes and a decrease of unconditioned reflex secretion. Author therefore concludes that novocaine nearly always acts on the cerebral cortex and in small stages affects other underlying brain formations. No references. Graphs.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

Card 2/2 Pub. 17-13/23 FD-2949

Institution : Chair of Psychiatry (Head: Active Member Academy Medical Sciences USSR Prof. N. I. Ozeretsiy (deceased) First Leningrad Medical Institute imeni I. P. Pavlov (Dir. A. I. Ivanov) and Laboratory of Physiology of Receptors (Head: Active Member Academy Medical Sciences USSR Prof V. N. Chernigovskiy) Institute Physiology Academy Sciences USSR imeni I. P. Pavlov (Dir. Academician K. M. Bykov) Leningrad

Submitted : 22 Aug 1954

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.G. (Leningrad)

Role of the climacteric in the pathogenesis of presenile psychoses and effect of sex hormones [with summary in English]. Probl. endok. i gorm. 3 no.6:73-77-N-D '57. (MIRA 11:3)

1. Iz psikhiatricheskogo sektora (zav.-prof. V.K.Fedorov) Instituta fiziologii imeni I.P.Pavlova (dir.-akad. K.M.Bykov) AN SSSR.

(ANDROGENS, therapeutic use,
presenile psychoses in female climacteric (Rus)
(CLIMACTERIC, FEMALE, complications,
presenile psychoses, androgen ther. (Rus)
(PSYCHOSES, PRESENILE, therapy,
androgens, in female climacteric (Rus)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

VAYNRIB, Ye.A., FRID, Ye.A., KOZLOV, Yu.G., MARTYNOV, L.N., MUSHEGYAN, S.A. LEVITSKAYA, L.A.

Clinical model of apparatus for artificial blood circulation; method of preparation and directions [with summary in English]. Eksper. khir. 3 no.3:15-24 My-Je '58 (MIRA 11:8)

1. Iz Nauchno-issledovatel'skogo instituta eksperimental'noy khirurgicheskoy apparatury i instrumentov (dir. M.G. Anan'yev) Ministerstva zdravookhraneniya SSSR.

(HEART, artif.
extracorporeal circ., clin. model & principles of operation (Rus))

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu. G.

Pathogenesis and clinical aspects of presenile psychoses. Trudy Inst. fiziol. 7:147-152 '58. (MIRA 12:3)

1. Psikhiatricheskiy sektor (zav. - V.K. Fedorov) Instituta fiziologii im. I.P. Pavlova AN SSSR.
(PSYCHOSES)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.G.

Effect of aminazine on the basic processes of the higher nervous activity. [with summary in English]. Zhur.nys.nevr. deiat. 8 no.6:904-910 N-D '58 (MIRA 12:1)

1. Psychiatric Section and Laboratory of Physiology and Pathology of the Higher Nervous Activity, Pavlov Institute of Physiology USSR Academy of Sciences, Leningrad.
(CHLORPORMAZINE, effects,
on conditioned reflex funct. in dogs (Rus))
(REFLEX, CONDITIONED
eff. of chlorpromazine in dogs (Rus))

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.G., VAYNRIB, Ye.A., FRID, Ye.A.

Oxygenator of an artificial circulation apparatus. Med.prom. 12 no.8:48-50 Ag '58 (MIRA 11:9)

1. Nauchno-issledovatel'skiy institut eksperimental'noy khirurgicheskoy apparatury i instrumentov.
(PERFUSION PUMP (HEART))

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ANAN'YEV, M.G.; VAYNRIB, Ye.A.; VISHNEVSKIY, A.A.; KOZLOV, Yu.G.; LEVITSKAYA, L.A.; MARTYNOV, L.N.; MUSHEGYAN, S.A.; FRID, Ye.A.

Improvement of the artificial heart apparatus designed by the Scientific Research Institute of Experimental Surgical Apparatus and Instruments. Eksper.khir. 4 no.5:3-8 S-O '59. (MIRA 13:1)

1. Iz Nauchno-issledovatel'skogo instituta eksperimental'noy khirurgicheskoy apparatury i instrumentov (dir. M.G. Anan'yev) i Instituta khirurgii imeni A.V. Vishnevskogo (dir. - deystvitel'nyy chlen AMN SSSR A.A. Vishnevskiy) AMN SSSR.
(HEART, MECHANICAL, equipment and supplies)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.G.

Treatment of presenile psychoses. Trudy Inst.fiziol. 8:476-478 '59. (MIRA 13:5)

1. Psikhiatricheskiy sektor (zaveduyushchiy - V.K. Fedorov) Instituta fiziologii im. I.P. Pavlova AN SSSR.
(SENILE PSYCHOSES) (RAUWOLFIA)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.G., kand.med.nauk (Leningrad)

A case of toxic dermatitis in gendon therapy. Klin.med. 37 no.1:157 Ja '59. (MIRA 12:3)

1. Iz psikhiatricheskogo sektora (zav. - prof. V.K. Fedorov) Instituta fiziologii imeni I.P. Pavlova AN SSSR (dir. - akademik K.M. Bykov).
(RAUWOLFIA ALKALOIDS, inj. eff.
total alkaloid prep. causing toxic dermatitis (Rus))
(DERMATITIS, etiol. & pathogen.
toxic, caused by total alkaloid prep. (Rus))

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

VAYNRIB, Ye.A.; MARTYNOV, L.N.; FRID, Ye.A.; KOZLOV, Yu.G.; ANAN'YEV, M.G.; MUSHEGYAN, S.A.; LEVITSKAYA, L.A.

Apparatus for artificial blood circulation. Med.prom. 14 no.11:40-45 N '60. (MIRA 13:11)

1. Nauchno-issledovatel'skiy institut eksperimental'noy khirurgicheskoy apparatury i instrumentov.
(BLOOD--CIRCULATION, ARTIFICIAL)
(MEDICAL INSTRUMENTS AND APPARATUS)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ANAN'YEV, M.G.; VAYNRIB, Ye.A.; KOZLOV, Yu.G.; LEVITSKAYA, L.A.; MARTYNOV, L.N.; MUSHEGYAN, S.A.; FRID, Ye.A.

Improved apparatus for artificial blood circulation (the AIK of 1959) and new data on its use. Trudy NIIEKHAI no.5:113-118 '61.
(MIRA 15:8)

1. Nauchno-issledovatel'skiy institut eksperimental'noy khirurgicheskoy apparatury i instrumentov.
(PERFUSION PUMP (HEART))

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ANAN'YEV, M.G.; VAYNRIB, Ye.A.; GORBOVITSKIY, Ye.B.; KOZLOV, Yu.G.; KASHCHEVSKAYA, L.A.; LEVITSKAYA, L.A.; GOL'DINA, B.G.; SUPKO, N.S.; IVANOVA, L.N.; UNIK, V.I.

"Artificial kidney" apparatus built by the Research Institute for Experimental Surgical Apparatus and Instruments and the results of using it in an experiment. Trudy NIIEKHAI no.5:168-173 '61. (MIRA 15:8)

1. Nauchno-issledovatel'skiy institut eksperimental'noy khirurgicheskoy apparatury i instrumentov.

(ARTIFICIAL KIDNEY)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

SOROKINA, M.I.; CHILINGARIDI, Ye.K.; KOZLOV, Yu.G.; GORBOVITSKIY, Ye.B. (Moskva)

Treatment of acute renal insufficiency by hemodialysis using an "artificial kidney" apparatus of Soviet manufacture. Klin. med. no.3:27-31 '62. (MIRA 15:3)

1. Iz otdeleniya "iskusstvennaya pochka" I Moskovskogo ordena Lenina meditsinskogo instituta (dir. - chlen-korrespondent AMN SSSR V.V. Kovanov, glavnyy vrach B.S. Bobov, nauchnyye rukovoditeli - zasluzhennyy deyatel' nauk prof. N.N. Yelanskiy i prof. I.M. Epshteyn).
(RENAL INSUFFICIENCY) (KIDNEYS, ARTIFICIAL)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ANAN'YEV, M.G.; GORBOVITSKIY, Ye.B.; KOZLOV, Yu.G.; GOL'DINA, B.G.; KASHCHEVSKAYA, L.A.; LEVITSKAYA, L.A.; IVANOVA, L.N.; SUPKO, N.S.; TKACHENKO, A.S.; UNIK, V.I.

Study of and experience in the use of the Soviet artificial kidney apparatus. Sov.med. 26 no.7:15-20 Jl '62. (MIRA 15:11)

1. Iz Nauchno-issledovatel'skogo instituta eksperimental'noy khirurgicheskoy apparatury i instrumentov (dir. M.G.Anan'yev).
(KIDNEYS, ARTIFICIAL)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

YEGOROV, V.S.; KOZLOV, Yu.G.; SHUKHTIN, A.M.

Concentrations of excited atoms in a helium - neon pulse discharge. Opt. i spektr. 15 no.6:839-840 D '63.
(MIRA 17:1)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

YEGOROV, V.S.; KOZLOV, Yu.G.; SHUKHTIN, A.M.

Concentrations of excited atoms in a pulse discharge through helium. Opt. i spektr. 17 no.1:154-156 Jl '64.

(MIRA 17:9)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ACC NR: AP7006949 SOURCE CODE: UR/0129/67/000/001/0065/0067

AUTHOR: Zalesskiy, V. I.; Kozlov, Yu. I.; Lin, S. T.

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

TITLE: Strengthening of Kh14G14N3T steel during manufacture of end plates by cold burnishing

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 1, 1967, 65-67

TOPIC TAGS: stainless steel, tensile strength, yield strength, hardness, cold working /Kh14G14N3T steel

ABSTRACT: The change in the mechanical properties of stainless-steel end plates in the process of their manufacture by cold burnishing has been investigated. Butt-welded round blanks, 16 mm thick, were first spherically formed and heat treated, then cold burnished into end plates 3000 mm in diameter and given final heat treated. It was found that during end plate manufacture, the tensile strength, yield strength and hardness significantly increased, while the reduction of area and, particularly, elongation and notch toughness sharply decreased. The respective mechanical properties of the parent and burnished metal were: tensile strength 75 and 98—102 kg/mm^2; yield strength 42 and 93—101 kg/mm^2; hardness 201 and 348 HB; reduction of area 65 and 44—59%; elongation 45 and 13%; and notch toughness 23 and 4—7 kgm/cm^2. To

Card 1/2 UDC: 669.14.018.298,8.621.787.4

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ACC NR: AP7006949

obtain end plate without rupture, it must be heat-treated after preforming and during burnishing. Orig. art. has: 2 tables. [AZ]

SUB CODE: 11, 13/ SUBM DATE: none

Card 2/2

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.I.

Effect of the driving back of formation water by the flow of drilling fluid on the results of mud-analysis logging. Razved.i prom.geofiz. no.45:92-96 '62. (MIRA 15:11)
(Krasnodar Territory—Oil well logging)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ACCESSION NR: AP4038895 S/0182/64/000/005/0001/0003

AUTHORS: Zalesskiy, V. I.; Tsibanova, M. S.; Kozlov, Yu. I.

TITLE: On the profile of hammer blocks for forging on hydraulic presses of low plasticity alloys

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 5, 1964, 1-3

TOPIC TAGS: forging, steel alloy, hammer block, hydraulic press, metal deformation

ABSTRACT: The authors conducted comparison tests on the forging of final parts of steel bars on cut hammer blocks with a 7-mm radius of edge curvature (see Fig. 1 on the Enclosure) and on similar blocks with an angle of inclination (α) of 15°. Samples for test use were prepared from low plasticity steel of 40-mm diameter and 200-mm length with a cast structure. The samples were heated and placed on a 200-ton press. The hammer blocks were heated to 300-350C and sample temperatures of 800, 900, 1000, 1100, and 1200C were used for testing. The allowed degree of deformation was given by the formula

$$\varepsilon = \frac{D_0 - h_1}{D_0} \cdot 100\%,$$

where D_0 is the sample diameter before deformation and h_1 is the height in

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ACCESSION NR: AP4038895

millimeters of the transverse section after deformation; the same degree of deformation allowed was also calculated by

$$\varepsilon = \frac{F_0 - F_1}{F_0} \cdot 100\%$$

where F_0 and F_1 are the area of the transverse section before and after deformation respectively. The resulting degrees of deformation are tabulated, as are the results of varying the inclination angle of the blocks. The optimal inclination angle for one pass was found to be 20°; the absence of cracks during deformation was noted even for 29.8% deformation. Similar testing using a 3000-ton press in production conditions gave good results. Orig. art. has: 3 figures, 2 tables, and 2 equations.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 01

SUB CODE: MM

NO REF SOV: 000

OTHER: 000

Card 2/3

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ACCESSION NR: AP4039273 S/0148/64/000/005/0090/0093

AUTHOR: Zalesskiy, V. I.; Tsibanova, M. S.; Kozlov, Yu. I.

TITLE: Determination of Plasticity in Ingot and Billet Forging

SOURCE: IVUZ. Chernaya metallurgiya, no. 5, 1964, 90-93

TOPIC TAGS: plasticity, deformation, hot drawing, reduction, forging ingot, billet

ABSTRACT: The authors investigated plasticity for the purpose of determining the proper degree of deformation during hot drawing. Reduction was carried out in rhombic dies. Cast and forged 250 mm long specimens with a 40 mm diameter were cut from a low-plasticity steel ingot. Heating to 1150 C was followed by cooling to 30 C above test temperatures and 15 min holding. A 200 ton hydraulic press was applied. Rupture and upsetting tests showed the optimal temperature range for the deformation of the specimens to be 950 to 1170 C. Under industrial conditions the degree of deformation was calculated from the press stroke according to the equation

$$\varepsilon = D_o - h_1/D_o \times 100\%$$

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ACCESSION NR: AP4039273

where D_0 = initial diameter of the specimen; h_1 = final permitted height in drawing during one operation. The cross-sectional area was measured with a planimeter from a templet indentation. Thus, a method simulating the process of a given forging operation is suitable for the determination of the degree of deformation. Orig. art. has: 2 figures, 2 equations and 2 tables.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 08Oct63 DATE ACQ: 12Jun64 ENCL: 00

SUB CODE: MM / NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

SHIGORIN, D.N.; KOZLOV, Yu.I.

Study of free radicals of the triphenylmethyl group with the aid of their luminescence spectra. Opt.i spektr. 10 no.5:600-606 My '61. (MIRA 14:8)

(Trityl group—Spectra)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

NURMUKHAMETOV, R.N.; SHIGORIN, D.N.; KOZLOV, Yu.I.; PUCHKOV, V.A.

Effect of the hydrogen bond on the luminescence of hydroxy- and amino azo compounds. Opt. i spektr. 11 no.5:606-612 N '61. (MIRA 14:10)

(Azo compounds--Spectra)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

SHIGORIN, D.N.; NURMUKHAMETOV, R.N.; KOZLOV, Yu.I.

Luminescence of indigo solutions at 77°K. Opt.i spektr. 12 no.5:659-661 My '62. (MIRA 15:5)
(Indigo) (Luminescence)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

NURMUKHAMETOV, R.N.; KOZLOV, Yu.I.; SHIGORIN, D.N.; PUCHKOV, V.A.

Luminescence spectra of azomethine compounds. Dokl. AN SSSR 143 no.5:1145-1148 Ap '62. (MIRA 15:4)

1. Predstavleno akademikom A.N.Tereninym.
(Schiff bases--Spectra)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

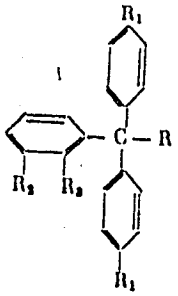
S/048/63/027/001/007/043
B163/B180

AUTHORS: Kozlov, Yu. I., and Shigorin, D. N.

TITLE: Formation of free radicals of the triphenylmethyl series

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 27, no. 1, 1963, 14-16

TEXT: Compounds of the following type



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were studied, where R = H, OH, Cl, H_3C; R_1 = H, $N(CH_3)_2$, $N(C_2H_5)_2$, R_2 = H, Cl, OCH_3, NO_2; R_3 = H, OCH_3. In such compounds, the $\equiv$C - R bond breaks under ultraviolet irradiation with wavelengths between 250 and 350 mμ. The formation of the radicals is proved by the epr in the irradiated compounds, and by the fact that the luminescence spectra of the particles obtained after irradiation of $(C_6H_5)_3CH$, $(C_6H_5)_3CCl$, $(C_6H_5)_3COH$ coincide with the spectrum of the free triphenylmethyl radical obtained by thermal dissociation of $(C_6H_5)CC(C_6H_5)_3$. Before irradiation, the molecules show strong fluorescence at 3800 - 4500 Å, and phosphorescence at 4200 - 4800 Å. Both fade as the irradiation time increases and the intensity of a new fluorescence band at about 5800 Å increases, which is specific for the resulting radicals. The phosphorescence of the initial molecules and the formation of radicals becomes stronger if the solvent is changed from benzene to hydrocarbons and alcohols. Since the energy of radical formation exceeds the energy of the exciting quanta (λ = 313 nm), a direct process is impossible, and

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Formation of free radicals of the ...

the following mechanism is suggested. First there is excitation of the π-electron system (singlet $\pi \rightarrow \pi^*$ transition) in the initial molecules. From this excited state a nonradiative transition to a triplet state with a lifetime of a few seconds is possible. Some of the molecules in the triplet state emit their energy in form of phosphorescence quanta, others transmit it to the system of σ-bonds $\geq C - R$ which is weakened and can now be broken up by ultraviolet radiation to form free radicals. The probability of formation of free radicals is lower for gamma-irradiation than for ultraviolet. This paper was presented at the 14th Conference on Spectroscopy in Gor'kiy, July 5-12, 1961. There are 2 figures.

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

NURMUKHAMETOV, R.N.; SHIGORIN, D.N.; KOZLOV, Yu.I.

Luminescence spectra of solutions of indigo and some of its derivatives at 77°K. Izv. AN SSSR Ser. fiz. 27 no.5:686-689 My '63. (MIRA 16:6)

(Indigo—Spectra)

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.I.; SHIGORIN, D.N.; NURMUKHAMETOV, R.N.; PUCHKOV, V.A.

Phototransfer of a proton in the quasiaromatic ring with H-bonding. Zhur. fiz. khim. 37 no.11:2432-2444 N'63. (MIRA 17:2)

1. Fiziko-khimicheskiy institut imeni L.Ya. Karpova, Moskva.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.I.; MUROMTSEV, V.I.; PISKUNOV, A.K.; SHIGORIN, D.N.; OZEROVA, G.A.; VEREYN, N.V.

Formation of radicals via the triplet state in the ultraviolet irradiation of frozen solutions of aromatic molecules. Zhur. fiz. khim. 37 no.12:2800-2802 D '63. (MIRA 17:1)

1. Fiziko-khimicheskiy institut imeni Karpova.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

SAVITSKIY, A.P.; KOZLOV, Yu.I.; ITIN, V.I.; SAVITSKIY, K.V.; ZHDANOVA, V.N.

Effect of porosity on the mechanical properties of metal-ceramic copper and the Cu--Al alloy. Izv. vys. ucheb. zav.; fiz no.5: 34-37 '64. (MIRA 17:11)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni V.V. Kuybysheva.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ACCESSION NR: AP4019026 S/0182/64/000/002/0035/0038

AUTHOR: Zalesskiy, V.I.; Tsibanova, M.S.; Kozlov, Yu. I.

TITLE: Technique for heating heat-resistant steel ingots

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 2, 1964, 35-38

TOPIC TAGS: steel production, ingot heating, steel, heat resistant steel, austenitic steel, carbide steel, heat resistance

ABSTRACT: Ingots of grade 48AN-1 heat-resistant steels of the austenite-carbide group were investigated. Thermocouples were used to measure the temperature. The results showed that steel ingots had previously been heated for too long a time and that the duration may be reduced by 6 hours. The temperature gradients in the steel were also measured. The author recommends rapid heating of the steel by placing the cold ingots into an oven already heated to 600 C. The temperature is then immediately raised to 800 C (for 1 to 1.5 hours) and the ingots are held at this temperature for 5 hours. The temperature is then forced to 1170-1200 C over 5 hours and maintained at this level for 3 to 4.5 hours. The total duration of heating for an ingot weighing 3.7 metric tons was about 16 hours. This forced method produced results which were in no way inferior to those of the usual heating method. "K. Ye. Sharapov, A. I. Senyakin, K. V. Ignat'yev and Ye. A.

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ACCESSION NR: AP4019026

Petrova also took part in this work." Orig. art. has: 8 figures.

ASSOCIATION: TsZL zavod

SUBMITTED: 00	DATE ACQ: 27Mar64	ENCL: 00
SUB CODE: ML	NO REF SOV: 000	OTHER: 000

2/2

Card

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 6718-65 EWT(m)/EWP(e)/EWP(b) EIP(c)/EWD/AED(m)-3 JD

ACCESSION NR: AP4043865 S/0139/64/000/004/0035/0040

AUTHORS: Savitskiy, A. P.; Itin, V. I.; Kozlov, Yu. I.; Zhdanova, V. N.; Kulikov, V. A.

TITLE: Resistance of metal-ceramic copper to compression at increased temperatures

SOURCE: IVUZ. Fizika, no. 4, 1964, 35-40

TOPIC TAGS: x ray diffraction study, metal ceramic material, ceramic sintering, ceramic thermal stability, ceramic pressing, compression resistance

ABSTRACT: To check on the influence of the manufacturing regime on the mechanical properties of metal-ceramic copper, the authors tested for compression, at 20, 350, and 500C, metal-ceramic copper obtained by triple pressing and sintering at different temperatures (250--1000C), with porosity 3--6%. The samples were made of elec-

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trolytic copper powder with particle size smaller than 50 microns, pressed at 1.5 ton/cm^2, and sintered at 250, 400, 550, 700, 850, and 1000C. The samples were pressed again after sintering at 5 tons/cm^2, sintered again at the corresponding temperature, and again pressed at 5 tons/cm^2. The results show that a metal-ceramic copper multiply pressed and sintered at low temperatures, has a higher resistance to compression at room temperature than metal subjected to high-temperature sintering, but is not as resistant to compression at high temperatures as is a ceramic prepared at high temperatures. The loss of strength is found to be due to partial annealing, as determined by the width of the (331) x-ray line of the sample. Measurements of the width of the x-ray line have established that recrystallization of the metal ceramic copper takes place during the sintering process in the temperature interval 300--350C. A hypothesis is advanced that the weakening of the metal-ceramic copper during compression at high temperatures is due to interaction between dislocations and vacancies, which enter the lattice upon dissolution of

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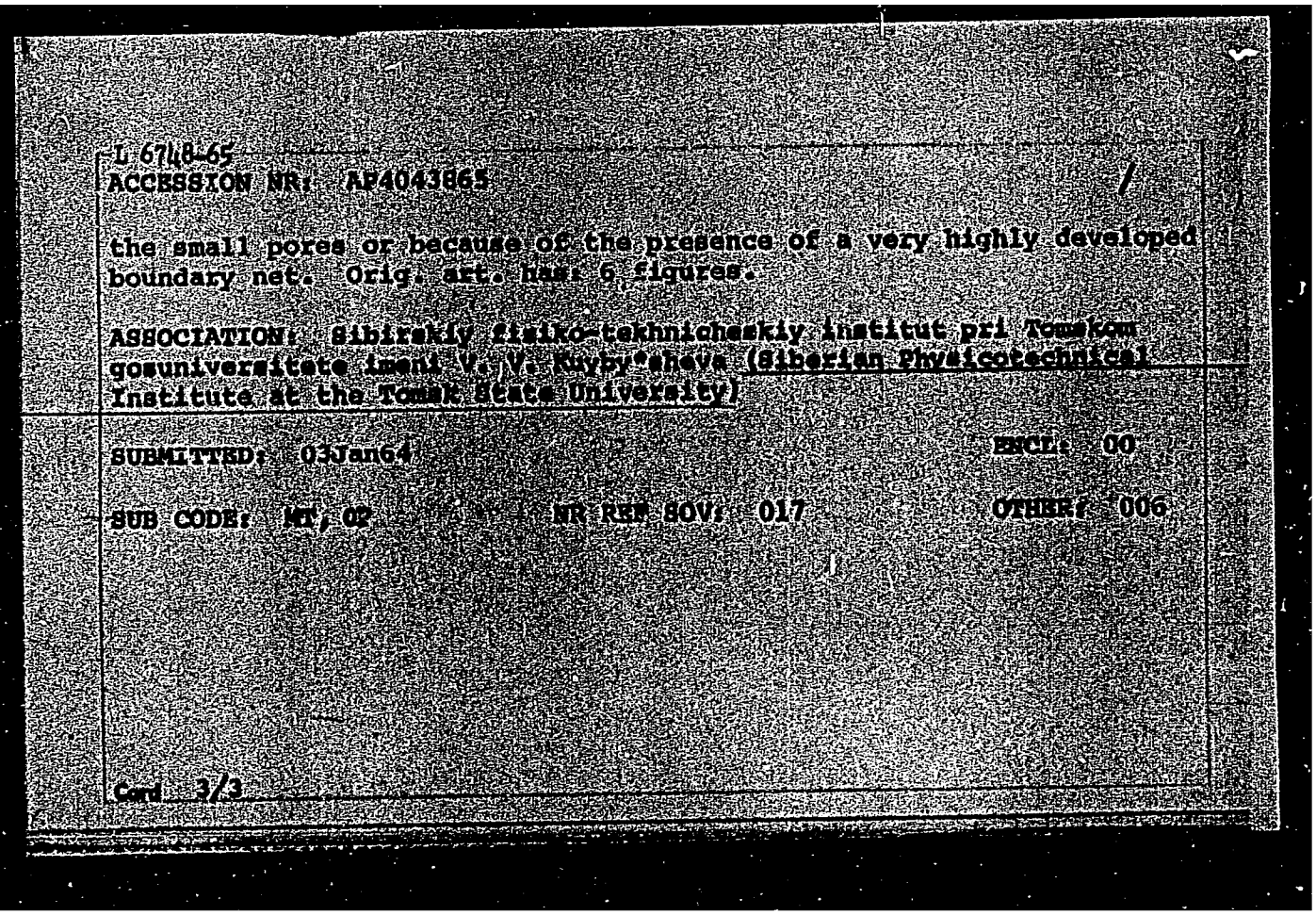

L 6748-65
ACCESSION NR: AP4043865

the small pores or because of the presence of a very highly developed boundary net. Orig. art. has: 6 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V. V. Kuybyshava (Siberian Physicotechnical Institute at the Tomsk State University)

SUBMITTED: 03Jan64 ENCL: 00

SUB CODE: MT, GP NR REF SOV: 017 OTHER: 006

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APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 11971-65 EWT(m)/EPR/EWP(t)/EWP(b) Pf-4/Ps-4 SSD/AFETR/
ASD(m)-3/AFWL/BSD JD

ACCESSION NR: AP4047346 S/0139/64/000/005/0034/0037

AUTHORS: Savitskiy, A. P.; Kozlov, Yu. I.; Itin, V. I.; Savitskiy, K. V.; Zhdanova, V. M.

TITLE: Effect of porosity on the mechanical properties of metal-ceramic copper and a Cu-Al alloy

SOURCE: IVUZ. Fizika, no. 5, 1964, 34-37

TOPIC TAGS: copper alloy, copper, metal ceramic material, porosity, mechanical property, hardness, powder metallurgy

ABSTRACT: In view of the lack of experimental data on the effect of low porosity on the mechanical properties, the authors investigated the dependence of the hardness and resistance to compression of copper and of Cu-Al alloy, prepared by powder-metallurgy methods, on the porosity. The preparation of the metal-ceramic samples is the same as described by A. P. Savitskiy et al (Poroshkovaya metallurgiya

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L 11971-65
ACCESSION NR: AP4047346

(Powder Metallurgy), in press). The copper samples were sintered at 250, 400, 550, 700, and 850°, while the Cu-Al alloy (10 atomic percent) were sintered at 500° with subsequent hot pressing at the same temperature. The porosity ranged between 0.3 and 15%. The results indicate that although the mechanical properties of a material with low porosity can exceed the corresponding properties of the cast material, owing to certain features of the structure, the dependence of these properties on the porosity remains linear, as established in earlier research. Orig. art. has: 3 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete im. V. V. Kuybysheva (Siberian Physicotechnical Institute at the Tomsk State University)

SUBMITTED: 26Feb64 ENCL: 00

SUB CODE: SS, MM NR REF SOV: 008 OTHER: 004

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APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ACCESSION NR: AP4036566 S/0139/64/000/002/0110/0115

AUTHORS: Savitskiy, A. P.; Itin, V. I.; Zhdanova, V. N.; Kozlov, Yu. I.

TITLE: On problem of excess vacancy sources formed during sintering of metallic powders

SOURCE: IVUZ. Fizika, no. 2, 1964, 110-115

TOPIC TAGS: metallic powder, sintering, cake porosity, initial porosity

ABSTRACT: An experimental investigation was made to verify theoretical conclusions on the influence of the heating rate in metallic powder sintering. Copper powder (50 μ size) of galvanic origin was used to prepare 15- to 20-mm cylindrical specimens (7 mm in diameter) in a double-sided press. The sintering was carried out in 5×10^{-3} Hg vacuum at a temperature of 900C for one hour. One set of specimens was heated at an average rate of 1.5 degrees per minute and the other at 200 degrees per minute. A graph (depicting final cake porosity versus initial porosity for both heating rates) and 170-magnification photographs of the pore sizes in the two specimens show that for small initial porosity under elevated pressures the use of slow heating rates to sintering temperatures gives rise to a

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ACCESSION NR: AP4036566

smaller expansion in the cakes than fast heating rates. Similarily, high heating rates generate larger pore sizes than slow heating rates. The results confirm the authors' predictions of diffusion mechanisms governing sintering porosity in crystalline materials. Orig. art. has: 3 formulas and 2 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V. V. Kuyby*sheva (Siberian Physicotechnical Institute at Tomsk State University)

SUBMITTED: 01Mar63 DATE ACQ: 05Jun64 ENCL: 00

SUB CODE: MM NO REF SOV: 012 OTHER: 003

Card 2/2

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 31856-65 EWP(e)/EWT(m)/EWA(d)/EWP(t)/EWP(k)/EWP(b) Pf-4 IJP(c) JD/JG

ACCESSION NR: AP5004272 S/0126/65/019/001/0117/0122

AUTHOR: Savitskiy, K. V.; Tikhinskaya, V. I.; Kozlov, Yu. I.; Kulikov, V. A.

TITLE: The effect of annealing on the properties of cold-worked Cu-Al alloys prepared by the sintering method

SOURCE: Fizika metallov i metallovedeniye, v. 19, no. 1, 1965, 117-122

TOPIC TAGS: annealing, cold working, aluminum bronze, powder metallurgy, powder bronze, cast bronze, solid solution, microsegregation, sintering, diffusion annealing, copper alloy

ABSTRACT: A study has been made of the effect of annealing, following cold-working, on the mechanical properties of aluminum bronze prepared by the sintering method. The authors found that the presence of a solid solution with a changing concentration and a very fine grain in the mentioned alloy serves to improve the hardening effect during annealing. Inasmuch as a copper-aluminum alloy produced by the powder metallurgy method contains solid solution concentrations, even a small aluminum content will also enhance the hardening effect in the course of annealing. There is a basis for the belief that the production of powder bronze by the rolling method will considerably improve the mechanical properties of the

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

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ACCESSION NR: AP5004272

alloy when hardened by annealing. The annealing of deformed alloys produced by the powder metallurgy method improves the hardening process in the case of small as well as large aluminum concentrations. This is due to the occurrence of micro-segregation and the formation of Suzuki atmospheres in the lattice defects. The authors are sincerely grateful to V.Ye. Papin, Yu. I. Paskal' and Yu. I. Korgan for the discussion of a number of problems and for their valuable comments." Orig. art. has: 6 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut (Siberian physicotechnical institute)

SUBMITTED: 01Nov63 ENCL: 00 SUB CODE: MM

NO REF SOV: 009 OTHER: 009

Card 2/2

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 3979-65 EWP(e)/EWT(m)/EWA(c)/EPR/EWP(t)/EWP(k)/EWP(z)/EWP(b) Pf-4/Pg-4
ACCESSION NR: AP5006195 IJP(c) JD S/0226/65/000/002/0078/0082 34 36 B

AUTHOR: Savitskiy, K. V.; Kulikova, V. A.; Tikhinskaya, V. I.; Kozlov, Yu. I.; Savitskiy, A. P.

TITLE: The effect of temperature on the mechanical properties of powder alloys of copper with aluminum 14

SOURCE: Poroshkovaya metallurgiya, no. 2, 1965, 78-82

TOPIC TAGS: aluminum alloy, metallurgical research, bronze, compressive strength, annealing 27

ABSTRACT: Because of their excellent mechanical properties, aluminum bronzes are replacing the more expensive tin bronzes. However, the poor casting properties of aluminum bronzes impede their use somewhat. These difficulties may be overcome by substituting powder metallurgy for casting. The authors examine the properties of aluminum bronzes produced by this method. Metal powder alloys with 5, 10 and 15 at. % aluminum are studied. In preparing the alloys, copper and aluminum powders with particles smaller than 50 μ were mixed for 50-70 hours.

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 39729-65

ACCESSION NR: AP5006195

Cylindrical specimens 7 mm in diameter and 14-15 mm high were pressed from this mixture at a pressure of 50 KN/cm^2. After preliminary annealing in a vacuum, the specimens were pressed for a second time at a pressure of 130 KN/cm^2 and finally sintered in a vacuum of $1.5 \cdot 10^{-3}$. The intermediate annealing temperature for all materials was 700°C; the final sintering temperature: Cu--700°, Cu+5 at. % Al--850°, Cu+10 at. % Al 850°, Cu+15% Al--950-1000°. The sintered samples were cut off on a lathe to an identical height--11±0.02 mm and then were annealed at a temperature of 700° for 1 hour to remove the cold hardening. These samples were compression tested on an R-5 machine in a temperature range from 20 to 500°C. It is found that Cu-Al alloys produced by the powder metallurgy method have a higher resistance to compression in the temperature range from 20/do 300°C than the cast alloys of corresponding composition. This phenomenon is connected with the presence of oxides in alloys, the extremely fine grain and high inhomogeneity concentration. Homogenization of the powder metal bronzes leads to improvement of the mechanical properties of the alloys at high temperatures in comparison with the non-homogenized bronzes. Hardening of the Cu-Al powder metal alloys during annealing after cold deformation by compression has a number of special features in comparison with cast alloys, in particular such hardening is stable over a wider range of temperatures and is observed at lower

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 39729-65
ACCESSION NR: AP5006195

aluminum concentrations. Orig. art. has: 5 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy nauchno-issledovatel'skiy institut (Siberian Physicotechnical Scientific Research Institute)

SUBMITTED: 13Jun63 ENCL: 00 SUB CODE: MM

NO REF SOV: 013 OTHER: 006

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APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 2710-66 EWT(m)/EWP(e)/EWP(w)/T/EWP(k)/EWP(z)/EWP(b)/EWP(t) IJP(c) JD/EM

ACCESSION NR: AP5017182 UR/0139/65/000/003/0124/0128

41
39
B

AUTHOR: Itin, V. I.; Savitskiy, A. P.; Kozlov, Yu. I., Savitskiy, K. V.

TITLE: Influence of the sintering temperature on the mechanical properties of Cu-Al alloy prepared by the method of multiple pressing and sintering

SOURCE: IVUZ. Fizika, no. 3, 1965, 124-128

TOPIC TAGS: copper alloy, aluminum containing alloy, powder metal compaction, powder metal sintering, temperature dependence

ABSTRACT: This is a continuation of earlier work by the authors (Izv. Vuzov SSSR, Fizika, No. 2, 139, 1965) and is aimed at eliminating the pores which appear in Cu-Al alloys sintered at temperatures above the eutectic melting point. To eliminate these defects the authors propose a two-step technology, wherein the pores are eliminated by a second pressing and sintering. The dependence of the hardness and resistance to compression of an alloy of copper with 10 at.% aluminum on the temperature of the sintering was measured at temperature 300, 400, 500, 600, 700, 900, and 1040C. The preparation of the samples and the test procedures are described. The maximum resistance to compression and maximum hardness was obtained at 500C, while best ductility was obtained at 600--700C. The results are analyzed from the point of view of formation of new phases of solid solutions at various

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ACCESSION NR: AP5017182

temperatures. It is concluded that optimal mechanical properties are obtained by multiple pressing and sintering at 600--700C. The second pressing with subsequent sintering seals the pores and at the same time reduces the number of stress concentrators in the sintered alloy. Variation of the second-sintering temperature and of the pressure permits variation of the grain size and the degree of homogeneity, thus yielding alloys with prescribed properties. Orig. art. has: 5 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut imeni V. D. Kuznetsova (Siberian Physicotechnical Institute)

SUBMITTED: 12Dec63 ENCL: 00 SUB CODE: MM

NR REF SOV: 005 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 60978-65 EWT(m)/EWP(t)/EWA(c)/T/EWP(t)/EWP(z)/EWP(b) JD

ACCESSION NR: AP5018177 UR/0148/65/000/007/0113/0115

669.16-194:669.26.24-669.187.25:539.214

AUTHOR: Zalesskiy, V.I.; Tulinova, M.S.; Kozlov, Yu. I.

TITLE: The influence of the purity of original charging material on the plasticity of chrome-nickel steel

SOURCE: IVUZ. Chernaya metallurgiya, no. 7, 1965, 113-115

TOPIC TAGS: steel plasticity, steel casting, charge purity, chrome steel, nickel steel, stainless steel

ABSTRACT: The influence of the purity of original charging material on the deformability of low-plasticity steels was studied on 3-kg casts smelted in a 25-kg capacity laboratory induction furnace. The test sample composition was as follows: I - 50% fresh charge added to scrap steel, nickel N-1 and ferrochrome 0000; II - 100% scrap steel smelt; III - fresh charge with N-1 nickel and 0000 ferrochrome; IV - fresh charge with N-2 nickel and 0000 ferrochrome; V - fresh charge with N-2 nickel and 00 ferrochrome; and VI fresh charge with N-1 nickel and 00 ferrochrome. The basic results are summarized in Fig. 1 of the Enclosure. The permissible degree of deformation at 800, 900, 1000, 1100 and 1200C is also given for each steel. Orig. art. has: 1 formula, 2 figures, and 2 tables.

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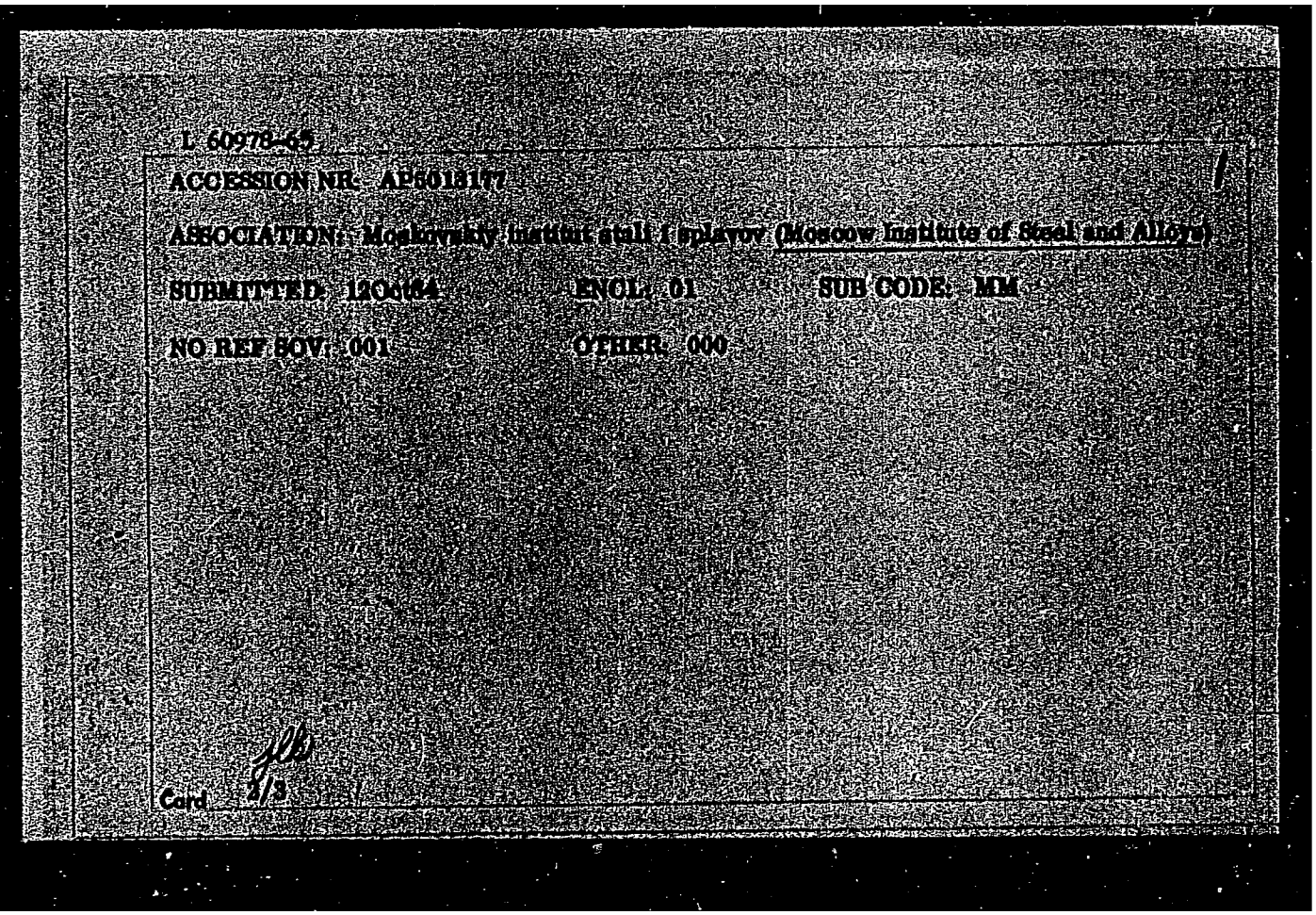

L 60978-65

ACCESSION NR: AP5013177

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 12Oct64 ENCL: 01 SUB CODE: MM

NO REF SOV: 001 OTHER: 000

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APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 40978-65

ACCESSION NR: AP5015177

ENCL: 01

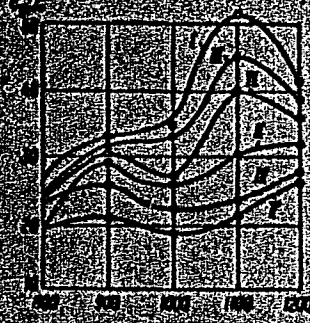

Fig. 1. Plasticity during setting of casts of various composition. Numbers labeling the curves = type of sample composition.

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

KOZLOV, Yu.I.; SHIGORIN, D.N.

Two-quantum photochemical processes in frozen solutions of triphenylmethane compounds. Dokl. AN SSSR 161 no.4:871-874 Ap '65. (MIRA 18:5)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. Submitted October 3, 1964.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

GRIGOR'YEVA, V.V.; SAVITSKIY, K.V.; ZHDANOVA, V.N.; KULIKOV, V.A.; SERGEYENKOVA, V.M.; SAVITSKIY, A.P.; ITIN, V.I.; KOZLOV, Yu.I.

Strain resistance and resistance to deformational distortions of ceramic metal alloys. Porosh. met. 5 no.9:81-90 S '65. (MIRA 18:9)

1. Institut problem materialovedeniya AN UkrSSR i Sibirskiy fiziko-tekhnicheskiy institut imeni Kuznetsova.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

SAVITSKIY, K.V.; ITIN, V.I.; KOZLOV, Yu.I.; SAVITSKIY, A.P.

Effect of the dispersity of an aluminum powder on the sintering of the Cu-Al alloy in the presence of the liquid phase. Porosh. met. 5 no.11:19-25 N '65. (MIRA 18:12)

1. Sibirskiy fiziko-tekhnicheskiy institut imeni V.D.Kuznetsova. Submitted February 13, 1965.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ITIN, V.I.; SAVITSKIY, A.P.; SAVITSKIY, K.V.; KOZLOV, Yu.I.; KULIKOV, V.A.

Sintering of the metal ceramic alloy Cu - Al. Izv. vys. ucheb. zav.; fiz. 8 no.2:139-144 '65. (MIRA 18:7)

1. Sibirskiy fiziko-tekhnicheskiy institut imeni Kuznetsova.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

ITIN, V.I.; SAVITSKIY, A.P.; KOZLOV, Yu.F.; SAVITSKIY, K.V.

Effect of the temperature of sintering on the mechanical properties of the Cu-Al alloy prepared by the method of repeated pressing and caking. Izv. vys. ucheb. zav.; fiz. 8 no.3:124-128 '65. (MIRA 18:9)

1. Sibirskiy fiziko-tekhnicheskiy institut imeni V.D.Kuznetsova.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 2099-66 EWP(e)/EWT(m)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) LJP(c) JD/EM
UR/0226/65/000/009/0081/0090
ACCESSION NR: AP5022547

AUTHOR: Grigor'yeva, V. V.; Savitskiy, K. V.; Zhdanova, Y. N.; Kulikov, V. A.; Sergeyenkova, V. M.; Savitskiy, A. P.; Itin, V. I.; Koklov, Yu. I.

TITLE: Resistance to deformation and stability of deformation-induced distortions of sintered powder alloys

SOURCE: Poroshkovaya metallurgiya, no. 9, 1965, 81-90

TOPIC TAGS: sintered nickel alloy, aluminum oxide containing alloy, dispersion strengthened alloy, alloy deformation resistance, deformation induced distortion, distortion stability, alloy microhardness

ABSTRACT: Compacts of powders of pure nickel and nickel with 1, 3, and 5% of α-Al_2O_3 or γ-Al_2O_3 were sintered at 1200—1400C in a hydrogen atmosphere and tested for compressive strength under compression at a rate of 0.15 mm/min with a reduction of up to 30% at 20 and 500C. The stability of deformation-induced distortions was investigated by measurements of the microhardness of specimens vacuum annealed in the 200—1050C range. The room-temperature compressive strength of sintered nickel alloys with up to 5% Al_2O_3 was slightly higher than that of pure sintered nickel, and the difference was somewhat greater at 500C. At both test temperatures,

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L 2099-66

ACCESSION NR: AP5022547

the compressive strength was higher in alloys containing α-Al_2O_3 and slightly increased in all alloys as the Al_2O_3 concentration increased. The size of Al_2O_3 particles had practically no effect on the room-temperature compressive strength, but at 500C the compressive strength of alloys increased appreciably as the particle size of Al_2O_3 decreased from 2 to 1 μ. The type of Al_2O_3 modification had the most sharply pronounced effect on the compressive strength. For example, an alloy with 3% α-Al_2O_3 had a compressive strength of about 65 and 36 dan/mm^2 at 20 and 500C, respectively, compared with 58 and 28 dan/mm^2, respectively, for an alloy with 3% γ-Al_2O_3. Low-temperature annealing (at up to 300—400C) produced an equally slight increase in the hardness of both nickel and Ni-Al_2O_3 alloys deformed 30% at 20C. Annealing at temperatures higher than 400C decreased the hardness of sintered nickel and all Ni-Al_2O_3 alloys. However, the hardness of cold-deformed Ni-Al_2O_3 alloys after high-temperature annealing remained higher than that of identically treated sintered nickel. The hardness level of Ni-Al_2O_3 alloys increased with higher content and fineness of Al_2O_3 powder. The maximum softening of Ni and Ni-γ Al_2O_3 alloys occurred at the same temperature, while the temperature of maximum softening of Ni-α-Al_2O_3 alloys was about 100C higher. The higher temperature stability of the deformation-induced distortions and a higher compressive

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ACCESSION NR: AP5022547 6

strength at room and elevated temperatures favor the use of sintered Ni-a Al_2O_3 alloys. Orig. art. has: 8 figures and 5 formulas. [JS]

ASSOCIATION: Institut problem materialovedeniya AN UkrSSR (Institute of Problems of the Science of Materials, AN UkrSSR); Sibirskiy fiziko-tekhnicheskiy institut im. V. D. Kuznetsova (Siberian Physicotechnical Institute)

SUBMITTED: 02Feb65 ENCL: 00 SUB CODE: MM

NO REF SOV: 006 OTHER: 014 ATD PRESS: 4113

Card 3/3

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000825910

L 20777-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(l) JD/HW
ACC NR: AP6004680 SOURCE CODE: UR/0182/65/000/010/0009/0010

40
39
B

AUTHOR: Zalesskiy, V. I.; Kozlov, Yu. I.; Tsibanova, M. S.

ORG: none

TITLE: Effect of the shape of tool on the pattern of deformation of low-plasticity steel during upsetting

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 10, 1965, 9-10

TOPIC TAGS: hot upsetting, material deformation, plasticity, die shape, punch shape

ABSTRACT: Considering that many low-plasticity alloys are forged by upsetting and that initially concave and convex spherical upset dies and punches are used for this operation while flat upset dies and punches are used for final upsetting, the effect of the configuration of upset tools on plasticity as well as on the nonuniformity of deformation over height of specimen was investigated under laboratory conditions (specimens with initial diameter D_0 = 30 mm and initial height H_0 = 40 mm, of cast low-plasticity metal. The upsetting was performed at 800-1200°C with deformation ϵ_{total} = 40% over the height of the specimen. It was found (Fig. 1) that over the range of upsetting temperatures from 950 to 1170°C the greatest plasticity is displayed by specimens subjected to preliminary upsetting (10% deformation over height)

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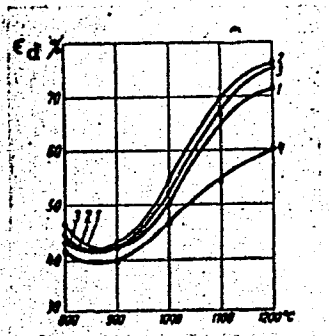

Fig. 1. Plasticity of steel upset by means of upset punches and dies of various configuration:

1 - flat; 2 - convex with $\alpha = 30°$; 3 - convex with $\alpha = 20°$; spherically concave

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by means of a punch with a projecting part 4.3 mm high shaped like a truncated cone. Over the entire range of upsetting temperatures employed the lowest plasticity was displayed by specimens upset by means of spherically concave tools (especially at 1100-1200°C, when the deformation is ~15-17%); The plasticity of specimens upset by means of flat punches is of an intermediate value. Upset punches with a projection shaped like a truncated cone reduce the nonuniformity of deformation, since then, during the preliminary upsetting, the projecting tip of the punch penetrates the central area of the specimen in such a way as to cause flowage of the specimen's metal; subsequent upsetting with flat upset punch causes flowage of metal in the surrounding annular zone of the specimen with its small surface area of friction; this displaces the metal of that zone both in the outward direction and in the direction of the cavity previously formed by the tip of the cone-shaped upset punch. All this leads to a sharp decrease in the zone of difficult deformation. By contrast, preliminary upsetting by means of spherically concave upset tool, with a deformation of ~15% over height, is highly disadvantageous, since it causes a decline in plastic properties and an increase in the nonuniformity of deformation. Orig. art. has: 5 figures, 1 formula, 1 table.

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L 31967-66 EWP(e)/EWT(m)/T/EWP(t)/ETI/EWP(k) LJP(c) JD/JH
ACC NR: AP6017096 (N) SOURCE CODE: UR/0226/66/000/001/0005/0011

AUTHOR: Savitskiy, K. V.; Itin, V. I.; Kozlov, Yu. I

ORG: Siberian Physicotechnical Institute im. V. D. Kuznetsov (Sibirskiy fiziko-tekhnicheskiy institut)

TITLE: Investigation of the mechanism of sintering powder-metal alloys of copper and aluminum in the presence of the liquid phase

SOURCE: Poroshkovaya metallurgiya, no. 1, 1966, 5—11

TOPIC TAGS: sintering, sintering temperature, eutectic, aluminum alloy, aluminum powder, copper alloy, powder alloy, powder metal, powder metal sintering

ABSTRACT: Experimental data have shown that during sintering of a mixture of aluminum and copper powders in vacuum, at temperatures exceeding the eutectic, the samples tested increased in volume. This increase was in direct proportion to the concentration of aluminum in the alloy. The increase in volume of the sintered samples is attributed to the swelling of copper particles due to the diffusion of aluminum into them and formation of cavities in place of the aluminum particles. Orig. art. has: 5 figures. [AM]

SUB CODE: 11/ SUBM DATE: 08Apr65/ ORIG REF: 017/ OTH REF: 007

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L 32936-66 EWT(d)/EWT(m)/EWP(k)/EWP(h)/T/EWP(w)/EWP(v)/EWP(t)/ETI/EWP(l) IJP(c)

ACC NR: AP6019931 SOURCE CODE: UR/0122/66/000/006/0061/0063

EM/WW/JD/HW

AUTHOR: Zalesskiy, V. I. (Doctor of technical sciences; Professor); Kozlov, Yu. I. (Candidate of technical sciences); Belen'kiy, V. A. (Engineer)

ORG: none

TITLE: The effect of elastic deformation of spinning machine and tools on the accuracy of closure size produced by roller spinning

SOURCE: Vestnik mashinostroyeniya, no. 6, 1966, 61-63

TOPIC TAGS: carbon steel, spinning, alloy steel ~~spinning~~, copper alloy, ~~spinning~~, aluminum alloy ~~spinning~~/St. 3, steel 20, Kh18N9T steel, Kh14G14N3T steel, L62 alloy, AMg5 alloy

ABSTRACT: The effect of elastic deformation of spinning machine and tools on the accuracy of the container closure size produced from carbon steel (St.3, 20), high-alloyed steel (Kh18N9T, Kh14G14N3T), non-ferrous metals (L62, AMg5) and others by means of cold roller spinning has been investigated. Container closures 4—25 mm thick in diameters ranging from 1300 to 4000 mm were manufactured on a spinning machine (see Fig. 1) consisting of support 1, moving device 2, shaped spinning roller 3, pressure roller 4, and a 70-kw, 1460-rpm drive motor (5). It was found that the maximum axial roller displacement at a pressure of 60 kg/mm^2 was 0.45 mm, or 3.7—11.1% of the total tolerance for closure diameter prescribed by machine

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